THE IMPACT OF OVERCONFIDENCE AND OPTIMISM ON INVESTMENT DECISION ON INDIVIDUAL INVESTOR IN INDONESIA

Reni Rezki Pratiwi
Farah Margaretha Leon
Faculty of Economics and Business Universitas Trisakti

Email: renirezkipratiwi@gmail.com
Email: farahmargaretha@trisakti.ac.id

ABSTRACT

This study aims to analyze the impact of Overconfidence and Optimism on Investment Decisions on Individual Investors in Indonesia. The data used in this study was obtained by spreading 200 questionnaires on individual investors, but a decent processed as many as 151 questionnaires using a likert scale. The research design used is hypothesis testing, while the analysis tool used is SPSS by using multiple regression method and correlation method. The results of this study indicate that there is no influence overconfidence on investment decisions and second hypothesis of this study there is a positive influence of optimism on investment decisions. The implication of this study is that investment managers should be able to offer high return portfolio despite high risk because there is optimism factor at the moment of decision making and for investor although having high level of optimism it is necessary to consider the risk in each investment decision.

Keywords*: investment decision, overconfidence, optimism*

ABSTRAK

Penelitian ini bertujuan untuk menganalisis dampak Overconfindence dan Optimisme terhadap Keputusan Investasi pada Investor Individu di Indonesia. Data yang digunakan pada penelitian ini diperoleh dengan menyebar 200 kuesioner pada investor individu, namun yang layak diolah sebanyak 151 kuesioner dengan menggunakan skala likert. Rancangan penelitian yang digunakan adalah pengujian hipotesis, sedangkan alat analisa yang digunakan adalah SPSS dengan menggunakan metode regresi berganda dan metode korelasi. Hasil penelitian ini menunjukkan bahwa tidak terdapat pengaruh overconfidence terhadap keputusan investasi dan hipotesa kedua dari penelitian ini terdapat pengaruh positif optimisme terhadap keputusan investasi. Implikasi dari hasil penelitian ini adalah manajer investasi harus dapat menawarkan portfolio return tinggi walaupun memiliki risiko tinggi karena terdapat faktor optimisme pada saat pengambilan keputusan dan bagi investor walaupun memiliki tingkat optimisme yang tinggi perlu untuk mempertimbangkan risiko dalam setiap keputusan investasinya.

Kata kunci: keputusan investasi, overconfidence, optimisme, investor individu

INTRODUCTION

The development of the investment world in Indonesia is very rapidly evidenced by the growing number of people who are interested and enter the capital market instruments to invest. This makes fund managers create products to offer to the public. Basically investment is an activity in which people invest money for the purpose of obtaining additional money in the future (Ullah et al, 2017). Up to July 2017, *Kustodian Sentral Efek Indonesia* (KSEI) recorded several operational performance improvements. The number of Single Investor Identification (SID) increased 14.7% from 894,116 per year 2016 to 1,025,414 per July of 2017. According to conventional financial theory, individual investors are very rational and maximize wealth in financial decisions (Zaidi and Tauni, 2012). There is a new paradigm called financial behavior that adds psychological aspects in stock market analysis. In the context of financial behavior make investor decisions that are influenced by cognitive and emotional bias. These biases, which most investors may be able to influence their decisions are biased overconfidence and optimism (Ullah et al, 2017).

Optimism is a bias where investors take risks and assume the future will benefit and ignore failure (Ullah et al, 2017). Investors' overconfidence when investing in the same stocks they exaggerates the positive aspects of the decisions made (Ullah et al, 2017). If investors have knowledge and experience in the field of investment then predictions will be easy for them and will also make correct predictions (Lee, O Brien and Sivaramakrishnan, 2008). Sometimes analysts predict the company's future may be true or may not be right; investors should be reminded to make good decisions because their main goal is profit maximization and this forecast may not be completely correct (Qian, 2009).

In accordance with the increasing number of individual investors can be said that the people of Indonesia began to be interested to invest in capital markets, especially stocks. Investment is closely related to investment decisions if investors are wrong in making investment decisions can cause risks, so in making decisions should be considered first. Behavior finance is a factor in irrational decision making because inadvertently the decision is influenced by state of mind, emotion, theory of trade, belief and interpretation of information (Virigineni and Rao, 2017). Behavior finance is an explanation for this phenomenon. Based on the above background, this study was conducted to determine the impact of overconfidence and optimism on investment decisions on individual investors in Indonesia entitled "The Impact of Overconfidence and Optimism on Investment Decisions on Individual Investors in Indonesia".

LITERATURE REVIEW

Investment and Investment Decisions

Investing is an activity in which people invest money for the purpose of obtaining additional money in the future (Ullah et al, 2017). Investment activity aims to obtain the rate of return or income in the future (Puspitaningtyas and Kurniawan, 2012). To earn income in the form of dividend and its value is expected to increase in the future investors can make shares purchases which is one of the investment activities. Capital gain and dividend yield is the rate of return on investment in stocks. This rate of return is an indicator to improve the welfare of investors. Investors expect the investments made to obtain the maximum rate of return with a certain level of risk from time to time (Puspitaningtyas, 2012). Therefore, in decision making the investor is concerned to consider all information received.

As already mentioned, the returns derived from investment activities are generally capital gains and dividends. The resulting dividend is determined by the company's ability to earn a profit. Meanwhile, capital gains are influenced by fluctuations in stock prices. The ability of companies to earn profits is influenced by micro and macro factors which in turn will affect the fluctuation of stock prices, and will raise investment risk (Rahadjeng, 2011).

The optimal investment decision can only be achieved if the investor makes the right decision. The right decision is a decision that is appropriate to the effect of the event on the value of the firm. Heuristic decision-making is an efficient rule that people follow to form judgments and make decisions that typically involve and focus on one aspect of a complex problem and ignore the other.

Overconfidence

Overconfidence is a feeling of over-confidence (Wulandari and Iramani, 2014). Overconfidence will make investors while investing in the same stock will exaggerate the positive aspects of the decision made (Ullah et al, 2017). Overconfidence causes investors to assume greater risk in taking to invest. In other words, investors who overconfidence more views a risk is low and vice versa, investors who do not overconfidence more views a high risk (Wulandari and Iramani, 2014). Investor overconfidence tends to invest in stocks that are familiar and diversify on fewer stocks. Men tend to overconfidence than women (Ritter, 2003). Overconfidence shows a one-sided method of viewing a particular situation or assessing more capabilities. This bias can result in investors underestimating the risks taken for being too sure of winning the market and generating a large return (Virigineni and Rao, 2017).

In the field of finance investment decisions require more experience and investor awareness about the stock market, as investors are more affected by overconfidence bias that have less experience on investment decisions (Kida et al., 2010). According to Jiangouxu (2012), when stock prices rise investors will overconfidence to buy those shares and when stock prices fall then investors are less overconfidence to buy shares so investment decisions are related to market conditions. Overconfidence investors have confidence that they are strong and can do everything with the knowledge they have to invest (Fast et al., 2011).

Optimism

Optimism is a bias in which investors take risks and assume a profitable future, success and ignore failure (Ullah et al, 2017). Optimism is proposed as an intermediary channel between the perception of past portfolio returns and financial decisions (Khan et al, 2017). Individuals optimistic in the face of adversity will keep trying to achieve goals and will adjust to the situation at hand. Individuals who are optimistic and pessimistic, different ways to overcome problems and face challenges, ways and results obtained in resolving difficulties encountered. Optimistic when faced with challenges will deal with it with confidence and persistence, although progress in solving such challenges is slow because they believe difficulties can be addressed. Unlike optimists, pessimists tend to give up when faced with difficult and challenging conditions, in addition they also tend to have negative feelings and imagine that a bad event will happen.

Investors who are optimistic will be motivated in investment decisions by thinking positively about their future and believing that investment will bring positive results in the future (Schmitt et al., 2013). If investors receive returns as expected then investors will be optimistic in the future on the stock companies but if their expectations are not met then they will not invest their money in the company (Magnuson, 2011).

Development of Hypotheses

Investors' overconfidence appears because of their beliefs about themselves and feels that they are better investors (Townsend, Busenitz and Arthur, 2010). Overconfidence forces investors to invest and when investing then investors have a difficult bias to predict (Deaves, Luder and Schroder, 2010). In the field of finance investment decisions require more experience and investor awareness about the market, as investors are more affected by overconfidence that has less experience on investment decisions (Kida, Kimberly, Moreno

& Smith, 2010). Overconfidence sometimes attracts investors in the perception that they are strong and can do everything (Fast, Sivanathan, Mayar & Galinsky, 2011) and their knowledge must require to invest (Graham, Campbell & Harvey, 2009). Overconfidence has a significant positive impact on investment decisions (Ullah et al, 2017). Based on the results of the above research can be concluded that the hypothesis as follows:

H_1: There is an influence between overconfidence on investment decisions

People who are optimistic when they have time to some extent with the situation and the outcome of their decisions are taken along with the risks (Bracha and Brown, 2012). If the investor receives back what he expects then will be optimistic in the future with the stock of the company but if their expectations do not meet then will not invest in the company (Magnuson, 2011). Positive optimism is positively significant with investment decisions (Ullah et al., 2017). Investors who are optimistic ignore the risk, as the asset model price states that the higher the risk then the return received is also high. Investors are optimistic about predicting the future on the basis of experience rather than past stock performance (Klein & Larsen, 2010), to invest on the basis of past stock performance, the results can vary between expectations and on the other side of the experience. Based on the results of the above research can be concluded that the hypothesis as follows:

H_2: There is an effect of optimism on investment decisions

RESEARCH METHODS

This study includes the type of hypothesis test research used to analyze the influence of independent variables i.e. overconfidence and optimism on the dependent variable that is investment decision on individual investors. The design of this study is using survey methods. Surveys were conducted on individual investors. For data collection used purposive sampling technique online through Google form from web based survey to respondents. The data analyzed is primary data that is data according to perception or opinion obtained from the source with the help of questionnaire or questionnaire as data collecting tool. Retrieval of data is using cross-sectional that is data taken in one time on many object. Respondents in this study are individual investors who conduct stock trading transactions in Indonesia Stock Exchange (IDX) last 1 year and have worked so have a fixed income per month. Samples collected as many as 200 respondents consisted of online web of 96 respondents and in hard copy form 104 respondents. The data collected then in the selection there are some data *outlier* as much as 49 data because in the respondent questioner tends not true so that the data is homogeneous and must be discarded. Questioner is spread not only in Trisakti University but in some other universities. Sampling is done by counting the number of indicators multiplied 5. The numbers of samples in this study are 30 indicators multiplied 5 = 150 samples (Hair et al, 2010).

In this research, there are two types of variables that will be analyzed are dependent variable and independent variable. The variables in this study were measured using a 5-point likert scale where 1 (strongly disagree) to 5 (strongly agree) are described in table 1 below:

Table 1. Variables and Measurements

Variable	Measurements	Source
Overconfidence	1. I am an experienced investor. 2. I am more confident in my own opinion than the opinions of friends or colleagues in investing. 3. I consult with others before buying stock. 4. I can predict the future stock rate after doing the analysis.	Mouna and Jarboui, 2015
Optimism	1. I am an individual who expects best results, even though conditions and situations are unpredictable. 2. I am easy to calm myself. 3. I feel I can experience failure. 4. I am optimistic about my future. 5. I enjoy time with my friends. 6. I am an individual who always tries to keep myself busy. 7. I am pessimistic that a thing will run will run according to my will. 8. I am not easily disappointed. 9. I do not appreciate the good things happen to me. 10. I expect good things instead of bad things.	Mishra *et al,* 2008
Investing Decision	1. I choose an investment based on information that I easily access. 2. I will invest again on investment instruments (shares) that have a good performance. 3. I invest in easily accessible shares (purchased). 4. Before making an investment decision, I look for information that supports my decision. 5. When someone proposes an investment, I will make sure to two to three people first. 6. I leave my investment adviser to make investment decisions. 7. I consult with investment advisor before making an investment decision. 8. I do not rely on financial advisors because the advice given is not convincing. 9. I believe that investment will go well on the advice of the advisor. 10. I do not trust financial advisors. 11. I am more adept at intuition in choosing an investment. 12. In investing, I study and seek my own information. 13. I have my own assessment of investments and do not accept suggestions from others. 14. I discuss with others on investment but in the end that decision is in my hands. 15. I do not discuss with others in making investment decisions. 16. I am a financial advisor myself.	Sahi *et al,* 2013

This study uses SPSS to perform hypothesis testing where using multiple regression formula as follows:

Y = a + b1 Overconfidence + b2 Optimism

RESULTS AND DISCUSSION

Profile of Respondents

This chapter discusses data analysis and research results on the influence of overconfidence and optimism as independent variables to investment decisions as dependent. The table below shows the profile of respondents from individual investors who have traded on the Indonesia Stock Exchange (BEI) for the last 1 year and have worked so that they have fixed monthly income.

Based on gender, the majority of male respondents in this study consisted of 78 respondents or 51.7% of the total respondents, while female respondents consisted of 73 respondents or 48.3% of the total respondents.

By age group, the majority of respondents in this study were aged between 20-30 years consisting of 117 respondents or 77.5% of the total respondents. Meanwhile, there were 20 respondents or 13.2% with age <20 years, 7 respondents or 4.6% with age 30-40 years, 7 respondents or 4.6% with age> 40 years old. Majority of respondents with age between 22-26 years because of this research disseminates data to academics or investors with relatively young age.

Based on recent education, the majority of respondents have a high school education, consisting of 80 people or 53.0% of the total respondents. Meanwhile, 51 respondents or 37.1% of the total respondents who have the last education S1, 9 respondents or 6.0% of the last education is S2 and 6 respondents or 4.0% have the last education that is D3. The majority of respondents in this study have a recent high school education because more researchers have access to research on young investors who are still a student Based on investment experience, the majority of respondents are having experience <5 years of investment consisting of 133 people or 88.1% of total respondents. Meanwhile 13 respondents or 8.6% have 5-10 year investment experience, 3 respondents or 2.0% have investment experience for 10-20 years and 2 respondents or 1.3% has investment experience> 20 years. The majority of respondents have less than 5 years investment experience because the sample in this study majority are relatively young, so in terms of investment experience has not been too experienced because it is still a student or still can be said beginner in terms of investment, especially the stock market.

Table 2. Profile of Respondents

Category		Frequency	Percentage
Gender	Male	78	51.7 %
	Female	73	48.3 %
Age	< 20 years	20	13.2 %
	20-30 years	117	77.5 %
	30-40 years	7	4.6 %
	> 40 years	7	4.6 %
Education	SMA	80	53.0 %
	D3	6	4.0 %
	S1	56	37.1 %
	S2	9	6.0 %
investing's Experience	< 5 years	133	88.1 %
	5-10 years	13	8.6 %
	10-20 years	3	2.0 %
	> 20 years	2	1.3 %

Source: Result of SPSS data processed

Descriptive statistics

Descriptive statistical analysis was performed by using frequency table to see the mean, minimum value, maximum value and standard deviation from data sample of each research variable. From the results of descriptive analysis test in table 3 after the disposal of outliers obtained the following results.

From the results of descriptive statistical tests based on overconfidence variables, the average overconfidence of individual investors in Indonesia is 3.3024 thus it can be said that the respondents tend to agree because it can predict the rate of future stock after doing the analysis. With highest supervision 5.0 (strongly agree) and lowest 1.0 (strongly disagree). While the standard deviation of 0.66927 means there is a deviation of 0.66927 against the average count.

Descriptive statistic test based on optimism variable in table 3, the average optimism on individual investor in Indonesia is 3.9391 thus can be said that respondents tend to agree because optimistic about their future. With highest supervision 5.0 (strongly agree) and lowest 1.0 (strongly disagree). While the standard deviation of 0.58286 means there is a deviation of 0.58286 against the average count.

Descriptive statistic test based on investment decision variable in table 3, the average of investment decision on individual investor in Indonesia is 3.9890 hence can be said that respondent tend to agree because investor will invest again on instrument of investment (stock) which have good performance. With highest supervision 5.0 (strongly agree) and lowest 1.0 (strongly disagree). While the standard deviation of 0.52833 means there is a deviation of 0.52833 against the average count.

Table 3. Descriptive Statistics Analysis

Variabel	Minimum	Maximum	Mean	Std. Deviation
Overconfidence	1.0	5.0	3.3024	0.66927
Optimism	1.0	5.0	3.9391	0.58286
Investing Decision	1.0	5.0	3.9890	0.52833

Source: Result of SPSS data processed

Correlation Test

This study was conducted to determine the impact of overconfidence and optimism on investment decisions and also to find out how large variables correlate with each other. Table 4 shows the correlation between the variables, for the sign (**) indicates that the variable is very significant and correlates at the 0.05 level.

a. With a significant value of 0.01 less than 0.05 then Ha is received, so there is a positive relationship between the overconfidence of the investment decision of 25.9%.
b. With a significant value of 0.000 smaller than 0.05 then Ha is received, so there is a positive relationship between optimism to investment decision of 60.8%.

Table 4. Correlation Test

		Overconfidence	Optimisme	Keputusan
Overconfidence	Pearson Correlation	1	0.335**	0.259**
	Sig. (2-tailed)		0.000	0.001
Optimism	Pearson Correlation	0.335**	1	0.608**
	Sig. (2-tailed)	0.000		0.000
Investing Decision	Pearson Correlation	0.259**	0.608**	1
	Sig. (2-tailed)	0.001	0.000	

Source: Result of SPSS data processed

The regression equation from the above table is as follows:

Y = 1.729 + 0.049 Overconfidence + 0.0533 Optimism

Table 5. Hypothesis Test

Variable Name	B Coefficient	Sig	Conclusion
(Constant)	1.729	0.254	
Overconfidence	0.049	0.369	Not Significant
Optimism	0.533	0.000	Significant

Source: Result of SPSS data processed

Overconfidence

According to the results shown in Table 5, the results of t test (individual) overconfidence do not have a significant influence on investment decisions. With β coefficient value as much as 0.049 and significance level as much as 0.369. The results of this study are not the same as that done by Ullah et al (2017) showed that overconfidence has a positive effect on investment decisions. Overconfidence investors spend part of their time and money collecting various kinds of information. Thus, investors who overconfidence tends to be more active in making investment decisions caused by information and experience owned. From the results of the study showed that the overconfidence does not have a significant effect on investment decisions because the majority of respondents have less than 5 years investment experience can be said beginner players in the capital market, especially stock so as not to affect investment decisions.

Optimism

According to the results shown in table 5 obtained from the results of t test (individual) optimism has a significant positive effect on investment decisions. With the value of β coefficient as much as 0.533 and significance level as much as 0.000. The results of the study are in accordance with Ullah et all's research (2017) which shows that there is a positive influence of optimism on investment decisions. The bias of optimism is positively related to investment decisions because investors ignore the risks and state that the higher the risk the higher the return will be. This is in accordance with the results of research indicating that optimism is a factor that can influence investment decisions because optimistic investors are individuals who expect the best results even though conditions and situations cannot be predicted and are investors who think high risk high return.

CONCLUSION

This study aims to provide empirical evidence on the Impact of Overconfidence and Optimism on Investment Decisions on Individual Investors in Indonesia. Based on the results of the analysis that has been done then obtained the following conclusions:

1. There is no influence of Overconfidence on Investment Decision.
2. There is a positive effect of Optimism on Investment Decisions.

The results of the analysis indicate that there is a significant positive effect of optimism on investment decisions so as to attract corporate investors should offer high return portfolio despite high risk due to the characteristics of investors who are optimistic that expect high returns with high risk. This research also shows that investors despite having a high level of optimism it is necessary to consider the risks in each investment decision.

REFERENCES

Ahmad, Zamri., Ibrahim, Haslindar., dan Tuyon, Jasman (2017), "Institutional investor behavioral biases: syntheses of theory and evidence", *Management Research Review,* Vol. 40, Issue: 5, 578-603, available at: https://doi.org/10.1108/MRR-04-2016-0091

Antonczyk, Ron Christian dan Salzmann, Astrid Juliane (2014), "Overconfidence and optimism: The effect of national culture on capital structure,"*Research in International Business and Finance*, Elsevier, vol. 31(C), 132-151, doi: 10.1016/j.ribaf.2013.06.005

Bracha, A., dan Brown, D. J. (2012), "Affective decision making: A theory of optimism bias", *Games and Economic Behavior*, *75*(1), 67-80, available at: https://doi.org/10.1016/j.geb.2011.11.004

Deaves, R., Lüders, E., dan Schröder, M. (2010), "The dynamics of overconfidence: Evidence from stock market forecasters", *Journal of Economic Behavior and Organization,* 1-11, doi: 10.1016/j.jebo.2010.05.001

Dowling, Michael, dan Lucey, Brian M. (2008), "Robust Global Mood Influence in Equity Pricing", *Journal of Multinational Financial Management* 18: 145-164, available at: https://doi.org/10.1016/j.mulfin.2007.06.002

Fast, N. J., Sivanathan, N., Mayer, N. D., dan Galinsky, A. D. (2011), "Power and overconfident decision-making", *Organizational Behavior and Human Decision Processes*, *117*(2), 249-260, available at: https://doi.org/10.1016/j.obhdp.2011.11.009

Ghozali, Imam (2016), *Aplikasi Analisi Multivariate dengan Program IBM SPSS 23, Edisi 8*. Semarang : Badan Penerbit Universitas Diponegoro.

Gitman, Lawrence J. dan Zutter, Chad J. (2015), *Principles of Managerial Finance, 14th Edition*. Boston : Pearson Education, Inc.

Graham, J. R., Harvey, C. R., dan Huang, H. (2009), "Investor competence, trading frequency, and home bias", *Management Science*, *55*(7), 1094-1106, doi=10.1.1.160.7202

Hair, Joseph F., Black, William C., Babin, Barry J., Anderson, Rolph E. (2010), *Multivariate Data Analysis, 7thEdition.* New York:Prentice Hall International,Inc.

Hidayat, Riskin (2010), "Keputusan Investasi dan Financial Constraints: Studi Empiris Pada Bursa Efek Indonesia", *Buletin Ekonomi Moneter dan Perbankan*, 457-481, available at: http://dx.doi.org/10.21098/bemp.v12i4.249

Khan, Mohammad Tariqul Islam., Tan,Siow-Hooi., dan Chong, Lee-Lee (2017), "Perception of past portfolio returns, optimism and financial decisions", *Review of Behavioral Finance*, Vol. 9 Issue: 1,79-98, available at: https://doi.org/10.1108/RBF-02-2016-0005

Kida, T., Moreno, K. K., dan Smith, J. F. (2010), "Investment Decision Making: Do Experienced Decision Makers Fall Prey to the Paradox of Choice?", *The Journal of Behavioral Finance*, *11*(1), 21-30, Available at: https://doi.org/10.1080/15427561003590001

Klein, C. T., &Helweg-Larsen, M. (2010), "Perceived control and the optimistic bias: A meta-analytic review", *Psychology and Health*,17(4),437-446.Availableat:https://doi.org/10.1080/0887044022000004920

Lee, B., O'Brien, J., dan Sivarama krishnan, K. (2008), "An analysis of financial analysts' optimism in long-term growth forecasts", *The Journal of Behavioral Finance*, *9*(3), 171-184, doi: 10.1080/15427560802341889

Magnuson, N. (2011), "The Role of Expectations in Value and Glamour Stock Returns", *Journal of Behavioral Finance*, *12*(2), 98-115, available at: https://doi.org/10.1080/15427560.2011.575972

Mishra, H., Shiv, B., dan Nayakankuppam, D. (2008), "The blissful ignorance effect: Pre-versus post-action effects on outcome expectancies arising from precise and vague information", *Journal of Consumer Research*, *35*(4), 573-585, doi: 10.1086/591104

Mouna, Amari. dan Jarboui, Anis. (2015), "Financial literacy and portolio diversification: an observation from the Tunisian stock market", *International Journal of Bank Marketing*, Vol. 33, No. 6, 808 – 822, available at: http://dx.doi.org/10.1108/IJBM-03-2015-0032

Mudjiyono, (2012), "Investasi Dalam Saham Obligasi Dan Meminimalisasi Risiko Sekuritas Pada Pasar Modal Indonesia", *Jurnal STIE Semarang*, Vol 4, No 2, Edisi Juni 2012 (ISSN : 2252-7826)

Pompian, M. M. (2006), Behavioral Finance and Wealth Management. Hoboken, New Jersey: John Wiley & Sons, Inc.

Pulford, B. D. (2009). Is luck on my side? Optimism, pessimism, and ambiguity aversion. *The Quarterly Journal of Experimental Psychology*, *62*(6), 1079-1087. International Journal of Information, Business and Management, Vol. 9, No.2, 2017

Puspitaningtyas, Zarah (2010), "Decision Usefulness Approach of Accounting Information: Bagaimana Informasi Akuntansi menjadi Useful?", *Akrual: Jurnal Akuntansi*, Vol.2, No. 1, 85-100, available at: http://fe.unesa.ac.id/ojs/index.php/akrl

Puspitaningtyas, Zarah dan Agung W Kurniawan (2012), "Prediksi Tingkat Pengembalian Investasi Berupa Devidend Yield Berdasarkan Analisis Financial Ratio", *Majalah EKONOMI: Telaah Manajemen, Akuntansi dan Bisnis*, Vol. 16, No. 1, 89-98.

Qian, H. (2009), "Time variation in analyst optimism: An investor sentiment explanation", *The Journal of Behavioral Finance*, 10(3), 182-193, doi: 10.1080/15427560903167753

Rahadjeng, Erna R. (2011), "Analisis Perilaku Investor Perspektif Gender Dalam Pengambilan Keputusan Investasi Di Pasar Modal", *Humanity*, Vol. 6, No. 2, 90-97, available at: http://ejou rnal.umm.ac.id/index.php/hu manity/article/view/13 9 1

Rekik, Y.H. dan Boujelbene, Y. (2014), "Evolutionary finance approach:Literature survey", *IOSR Journal of Economics and Finance*, 3(1), 44-53

Ricciardi, V. dan Simon, H. K. (2000), What is Behavioral Finance?, Business, Education and Technology Journal Fall 2000.

Ritter, Jay R. (2003), "Behavioral Finance", *Pasific-Basin Finance Journal*, 11: 429-437, available at: http://bear.cba.ufl/edu/ritter

Saad, Meiyanne D.P. dan Siagian, Helson (2011), "Sentimen Investor, Kendala Keuangan, Dan Equity Market Timing", *Finance and Banking Journal*, Vol. 13, No. 1, 1-15.

Sahi, S. K., Arora, A. P., dan Dhameja, N. (2013), An exploratory inquiry into the psychological biases in financial investment behavior, *Journal of behavioral finance*, 14(2), 94-103, available at: http://www.tandfonline.com/loi/hbhf20

Sekaran, Uma dan Bougie, Roger (2013), *Research Methods for Business: A Skill-Building Approach,* 6th Edition. New York: John Wiley @ Sons.

Seligman, M. E. P. (2008), "Positive Health. Journal Compilation". *International*

Association of Applied Psychology, Published: Blackwell Publishing. 57, 3-18. Doi: 10.1111/j.1464-0597.2008.00351.x

Townsend, D. M., Busenitz, L. W., dan Arthurs, J. D. (2010), "To start or not to start: Outcome and ability expectations in the decision to start a new venture", *Journal of Business Venturing*, *25*(2), 192-202, available at: https://doi.org/10.1016/j.jbusvent.2008.05.003

Ullah, Ihtesham., Ullah, Asad., dan Rehman, Ur Naqib. (2017), "Impact Overconfidence and Optimism on Investmet Decision", *International Journal of Information,Business and Management,*vol 9,no 2, 231-243

Virigineni, Mydhili dan Rao, M. Bhaskara (2017), "Contemporary Developments in Behavioral Finance", *International Journal of Economics and Financial Issues,* 7(1),448-459, available at http: www.econjournals.com

Wulandari, Dewi Ayu dan Iramani, Rr. (2014), "Studi Experienced Regret, Risk Tolerance, Overconfidence, Dan Risk Perception pada Pengambilan Keputusan Investasi Dosen Ekonomi", *Journal of Business and Banking.* Vol 4, 55-66

Zaidi, Farheen Btool dan Tauni, Muhammad Zubir, (2012), "Influence of Investor's Personality Traits and Demographics on Overconfidence Bias", *Journal of Contemporary Research in Business ,* vol 4,no 6, 730-746, available at : i**jcrb.webs.com**

Website

http://www.ksei.co.id/files/RegulationCapitalMarketLaw/undang-undang-nomor-8-tahun-1995-tentang-pasar-modal.pdf

http://www.ksei.co.id/files/uploads/press_releases/press_file/id-id/135_berita_pers_ksei_terus_upayakan_kemudahaan_pembukaan_rekening_investasi_20170816154208.pdf